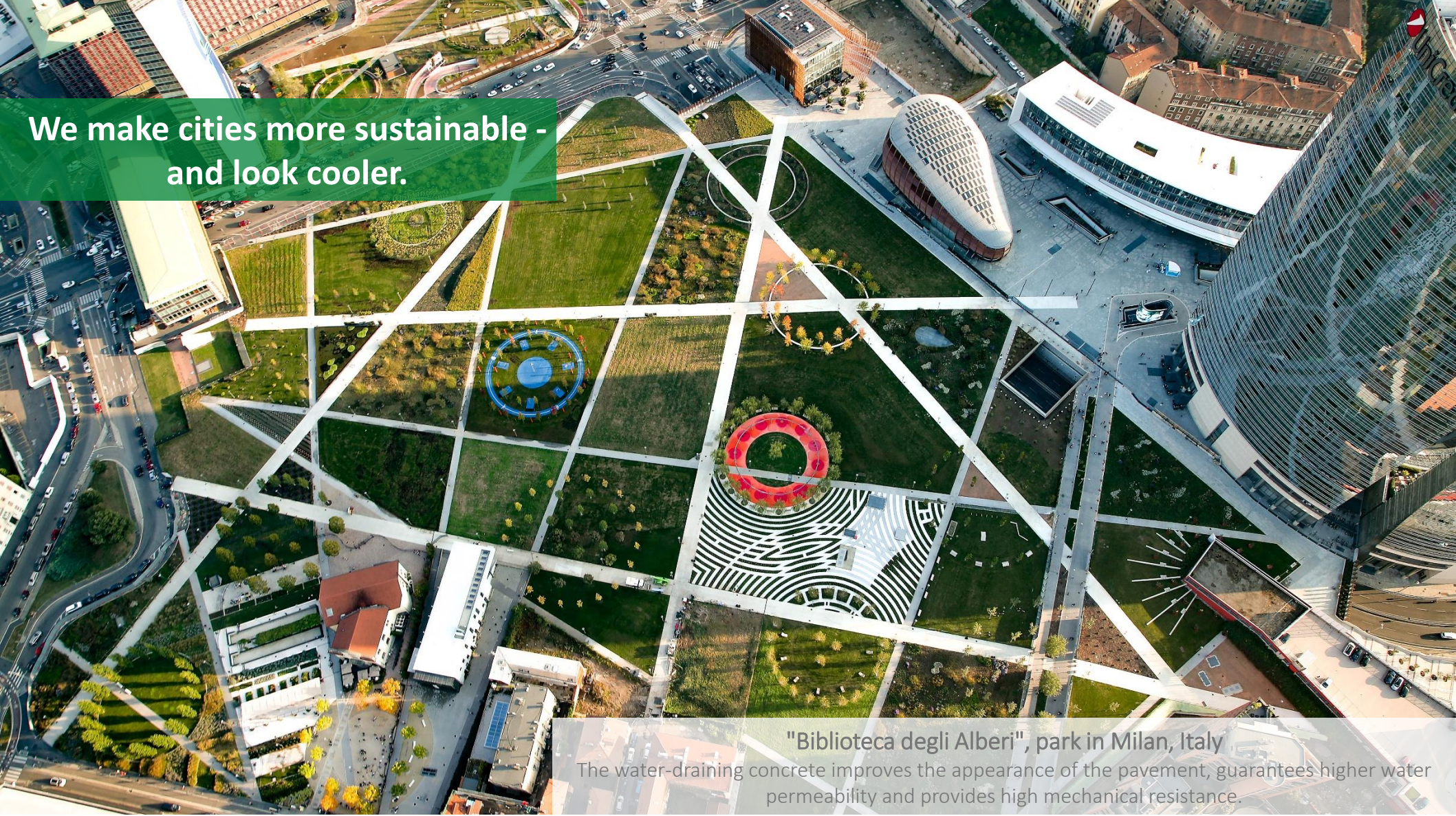
# HeidelbergCement

## Group Presentation 2022

# Material to build our future.

HeidelbergCement Headquarters, Heidelberg, Germany
Built with concrete which actively reduces the level of air pollutants.



# We make cities more sustainable - and look cooler.

"Biblioteca degli Alberi", park in Milan, Italy

The water-draining concrete improves the appearance of the pavement, guarantees higher water permeability and provides high mechanical resistance.

# We enable encounters.

Elbphilharmonie, Hamburg, Germany

30.000 m³ of concrete for the imposing concert hall in the Hanseatic city.

3D printed house, Beckum, Germany

Less material, lower carbon footprint - thanks to HeidelbergCement.

# We cross borders.

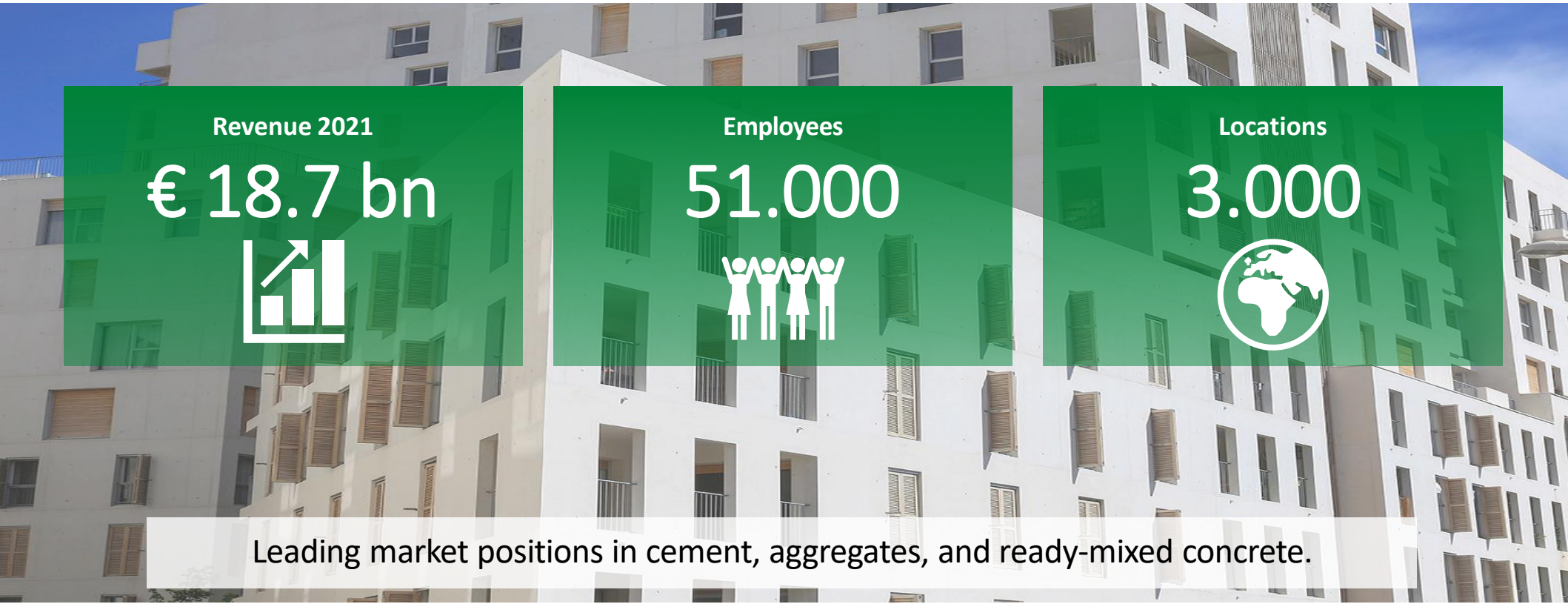
Počitelj Bridge, Bosnia and Herzegovina

Cement for the highest and longest bridge of the connecting road "Corridor Vc" through Bosnia and Herzegovina - over 100 meters high and 980 meters long.

# Concrete is essential for building a sustainable society

- Produced and sold locally
- 100% recyclable
- Durable
- Sound absorbent
- Designable
- Flexible

# The Group in figures




Leading market positions in cement, aggregates, and ready-mixed concrete.

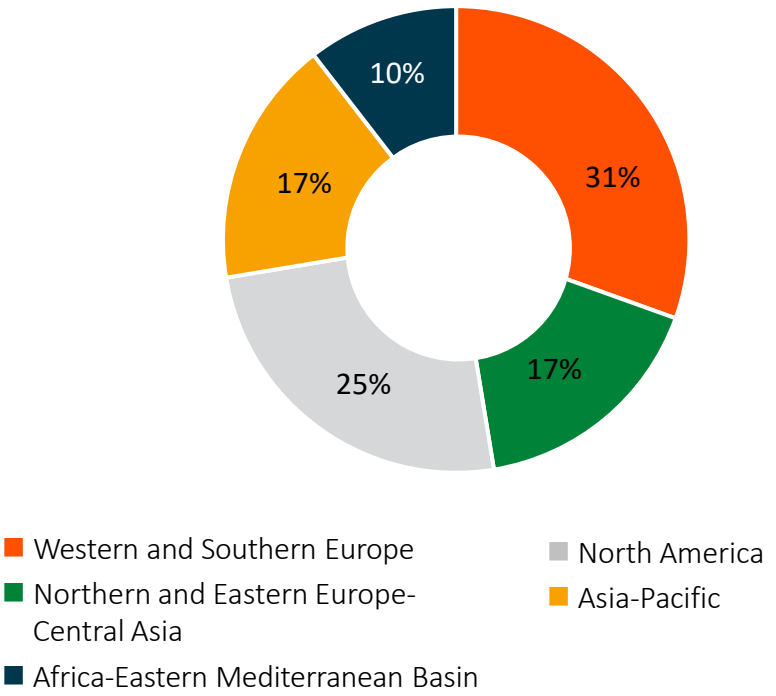
# Profitable growth and balanced regional positioning

## Financial highlights 2021

| | |
|---|---|
| Group revenue | €m 18,720 |
| Result from current operations before depreciation and amortisation | €m 3,875 |
| Adjusted earnings per share * | €7.91 |
| Dividend per share | €2.40 |
| ROIC | 9.3% |

* Adjusted for non-recurring effects

## Distribution of revenue 2021 by regions



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# HeidelbergCement: History and development

**Founded in 1873...** **...and today one of the world's largest building materials companies.**

| 1873 | 1889 | 1977 | 1989 | 1993 | 1995/96 | 1999 | 2001 | 2005/06 | 2007 | 2015 | 2016 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Foundation | Listing on the Frank-furt Stock Exchange | Lehigh, USA | Central and Eastern Europe | CBR | China, Turkey | Scancem | Indo-cement, Indonesia | Kazakhstan, India, Georgia | Hanson | Sale of building materials in North America and UK | Ital-cementi | |

# Our purpose

## Material to build our Future

The world is undergoing profound changes. Our building materials and solutions shape significant development worldwide. We build on one and a half centuries of experience. Now is the time to lay the foundation for our future.

At the center of our actions lies our responsibility for the environment.
**We want to be the leader in the industry on the path to carbon-neutrality.**

**We deliver long-term financial performance** through operational excellence, dedication, and openness for change.

**We are progressive minds with the ambition to drive transformation.** We push the boundaries to strengthen innovation and deepen partnerships with our customers and other stakeholders. Together we craft material solutions for the future. So that the world can always build on us

MATERIAL
TO BUILD OUR FUTURE

# Our culture principles

## Be stronger together and push forward!

Our future needs teamwork. We perform at our best when we build on our global strength. Let's combine our forces across all regions. With our hands-on attitude, we can overcome any challenge.

## Get the customer excited!

Our future needs strong players. Let's become even better partners for our customers. Their success is our success. We solve their problems. Even before they arise.

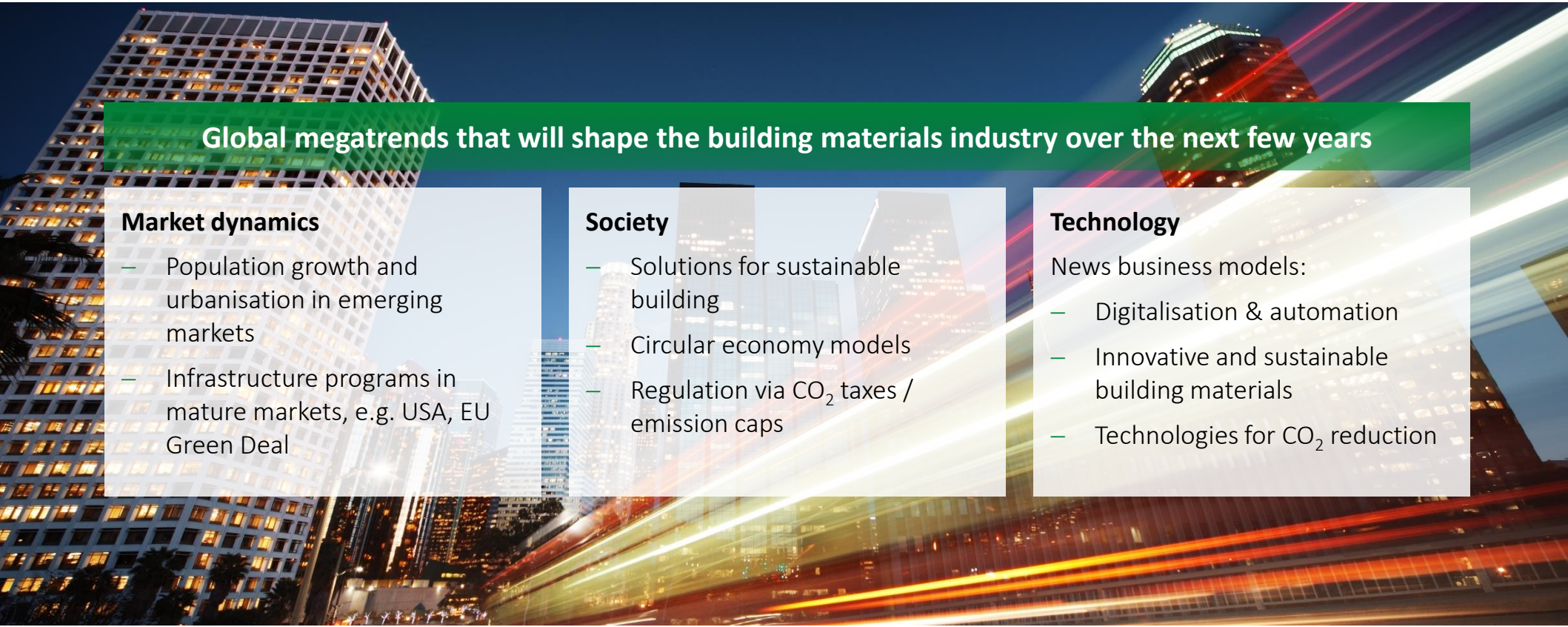
## Unleash innovation!

Our future needs creativity. Let's use our freedom to go in new directions. Inventiveness knows no hierarchy. A great idea can come from anywhere and anyone. Own it and push it.

## Think and act long term!

Our future needs solutions that last. That's what we offer. Reliable and sustainable materials. Let’s be the leader that turns our industry $CO_2$-neutral. Once and for all.

# The building materials industry will continue to grow



## Global megatrends that will shape the building materials industry over the next few years

### Market dynamics

- Population growth and urbanisation in emerging markets
- Infrastructure programs in mature markets, e.g. USA, EU Green Deal

### Society

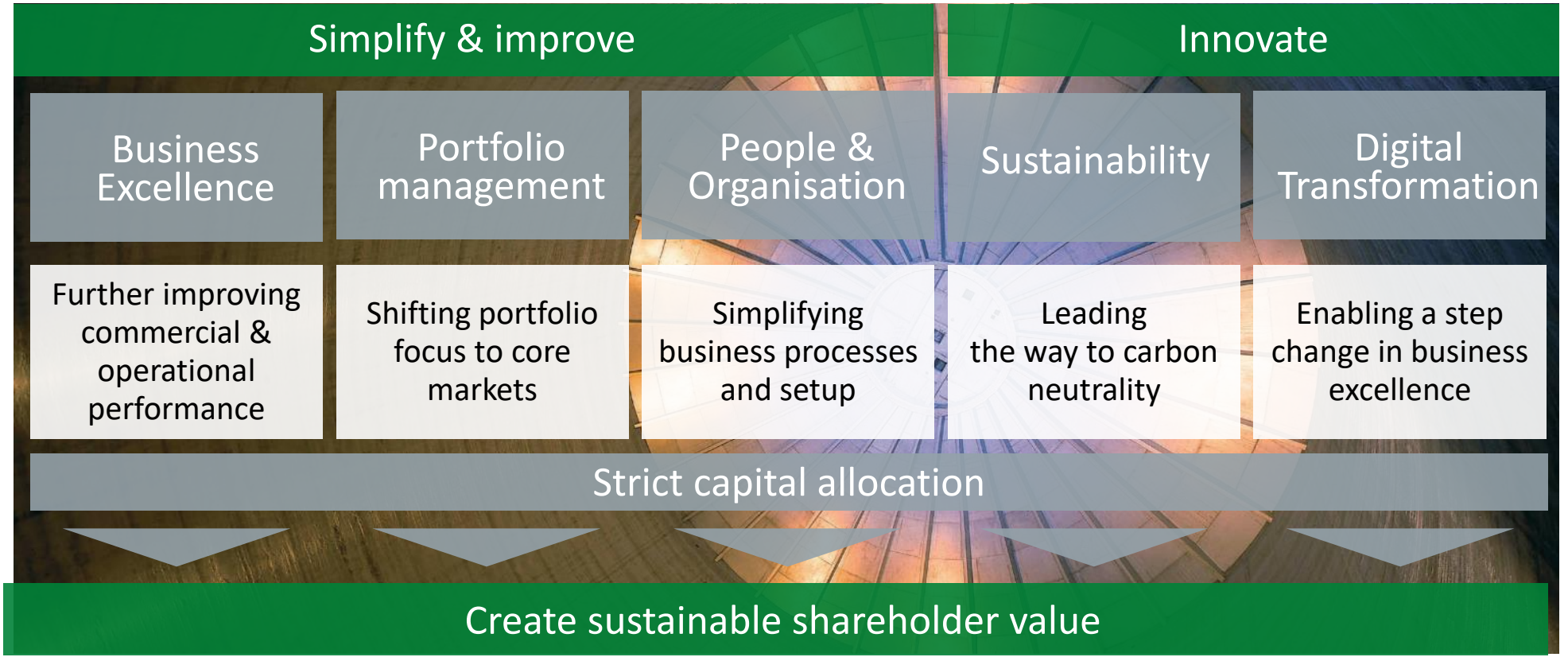
- Solutions for sustainable building
- Circular economy models
- Regulation via $CO_2$ taxes / emission caps

### Technology

News business models:

- Digitalisation & automation
- Innovative and sustainable building materials
- Technologies for $CO_2$ reduction

# Core elements of our strategy “Beyond 2020“



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# 2021 achievements vs. 2025 targets

**EBITDA margin**

+171 bps 2021

**+300 bps**

vs 2019

**ROIC**

9.3 % 2021

clearly

**>8%**

**Leverage ratio**

1.3 x 2021

**1.5x-2.0x**

**Sustainability**

565 kg $CO_2$/t cem. 2021

$CO_2$ CARBON NEUTRAL

**<525 kg**

$CO_2$/t cementitious material

$CO_2$ reduction target accelerated by 5 years: -30% vs 1990

**Digital transformation**

52 % 2021

**>75%** of global sales volumes covered by HConnect

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Our **Sustainability Commitments 2030** help us to find **new solutions** that will make our business even more sustainable – covering a wide range of Environmental, Social and Governance (ESG) aspects.

We have a strong track record of **reducing $CO_2$ emissions**, with ambitious targets underpinned by a clear roadmap.

Our local **sustainable and low-carbon product portfolio** offers a wide range of smart building solutions.

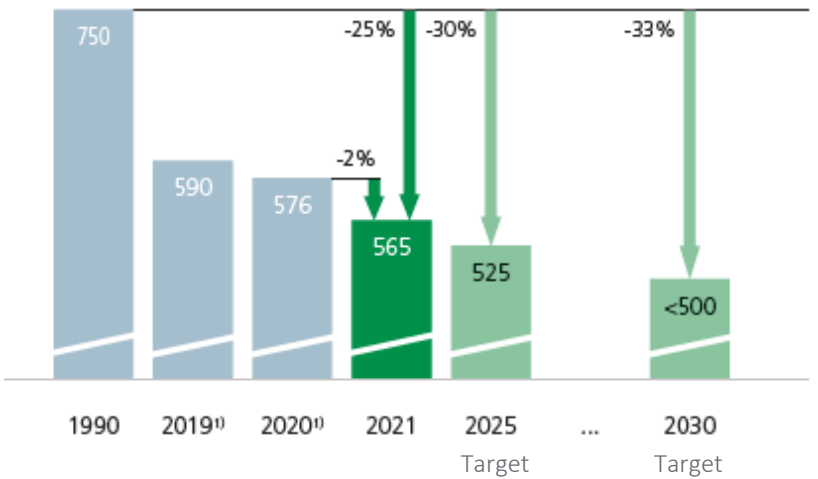
SUSTAINABILITY COMMITMENTS 2030

- Driving economic strength and innovation
- Achieving excellence in occupational health and safety
- Reducing our environmental footprint
- Enabling the circular economy
- Being a good neighbour
- Ensuring compliance and creating transparency

# We are continuously reducing our $CO_2$ emissions

## Specific net $CO_2$ emissions

(kg $CO_2$/t cementitious material)




## Reduction of $CO_2$ emissions (as of 2021):

- 2% less specific net $CO_2$ emissions compared to 2020 (-25% vs 1990)
- 26.4% - share of alternative fuels
- 72.9% - clinker factor

## $CO_2$ neutrality by 2050

- Increasing the use of alternative fuels and improving energy efficiency.
- Optimization of kiln systems and reduction of the clinker factor
- Promotion of carbon capture, utilisation and storage (CCUS) projects
- Improvement of circular economy and development of innovative products

[1] values as published in previous years.

# Lower clinker ratio and more biomass are key levers for $CO_2$ reduction

5 levers to meet our 2030 target

## Product mix

**-5% pts**

**Clinker ratio:**
2019 until 2030:
75% to 70%

## Alternative fuels

**+100%**

**AF rate:**
2019 until 2030:
24% to 43%

**Biomass rate:**
2019 until 2030:
9% to 19%

## Low emission fuels

Increased usage of gas as fuel (-40% $CO_2$ emissions/GJ compared to coal)

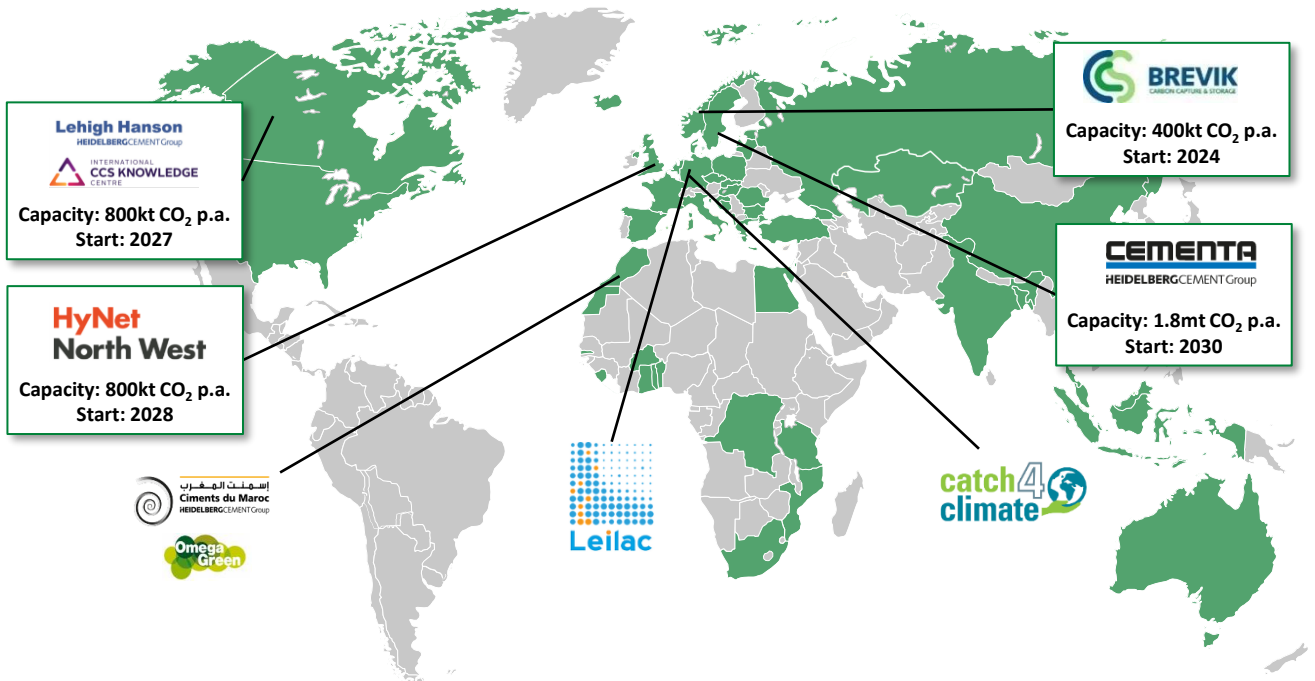
## Footprint changes / plant efficiency

All major overhaul investments targeting $CO_2$ reduction (e.g. EU, US)

## Commercial levers

Increased share of sustainable low carbon concrete products

# We are advancing projects on carbon capture technologies around the world




- CCUS = Carbon Capture, Utilisation, and Storage
- This technology is an important part of our climate strategy. helping us to mitigate process emissions from cement production.
- Until 2030, we target up to 10mt* of $CO_2$ reduction with our current CCUS projects.

* Include accumulated contribution from CCUS projects Brevik, Edmonton, Slite, and HyNet from 2024 to 2030

# Leading in Carbon Capture and Storage (CCS) at industrial scale

## Brevik CCS

400,000 t $CO_2$ reduction p.a.

| | |
|---|---|
| Location: | Brevik, Norway |
| Technology: | **Amine wash** – Post-combustion capture |
| $CO_2$-reduction: | Approx. **400,000 tonnes** of $CO_2$ per year, ~50 % of the plant's emissions. |
| Timing: | Construction activity underway<br>→ Project to be completed by 2024 |

**Project funding:**

Supported by the Norwegian government as part of the full-scale 'Longship' climate investment project that comprises capture, transport, and storage of $CO_2$.

**Pilot project:** Brevik is the world's first large-scale carbon capture plant of the cement industry, with 400,000 tonnes of $CO_2$ captured annually and transported for permanent storage.

# Entering the next project phase in innovative $CO_2$-capture technology

## LEILAC* 2

100,000 t $CO_2$ reduction p.a.

| | |
|---|---|
| Location: | Hanover, Germany |
| Technology: | **Direct separation** - capture of process related $CO_2$ on an industrial scale (patented technology) |
| $CO_2$-reduction: | Approx. **100,000 t** of $CO_2$ per year<br>~20% of the plant's emissions |
| Timing: | Implementation phase started in 2022 → Project to be completed by 2025 |

**Project funding:**

European research funding programme Horizon 2020 and a consortium of industry partners.

**Pioneering:** The LEILAC technology has the potential to enable the cement industry to efficiently capture their process emissions on an industrial scale.

* LEILAC = Low Emissions Intensity Lime And Cement

# We offer a wide range of country-specific sustainable product solutions

| Products / Solutions | Brands | Details |
|---|---|---|
| Low carbon concrete products | -60% EcoPlus® | – EcoPlus uses ground slag as secondary cementitious materials (SCM) to reduce $CO_2$ intensity in concrete.<br>– EcoCrete offers up to 66% $CO_2$ reduction per m³ of concrete and is achieved purely technically, without compensation measures. |
| | -66% EcoCrete® (DEU) | |
| Concrete with recycled aggregates | -70% Ecocrete® (NL) | – Ecocrete is a sustainable / eco-friendly concrete with up to 100 % recycled aggregates and low carbon cement.<br>– Green Concrete uses recycled materials and slag to reduce $CO_2$ content. |
| | -45% Green Concrete | |
| Innovative low carbon construction solutions | -40% i.power RIGENERA® | – i.power RIGENERA: concrete jacketing solution for structural retrofitting<br>– i.Tech 3D: high-tech concrete specially formulated for 3D printing technologies |
| | -50% i.Tech 3D | |
| Solutions for energy transition and clean air | Infra-light concrete | – Heidelberg infralight concrete is environmentally compatible and has a high thermal insulating effect - for a better energy balance of buildings.<br>– Powercrete: high-performance heat-conducting concrete for long distance underground cable power transmission. |
| | Powercrete® | |

Approx. $CO_2$ reduction potential vs. ordinary concrete, except in the case of i.Tech 3D & i.power RIGENERA (less concrete required)



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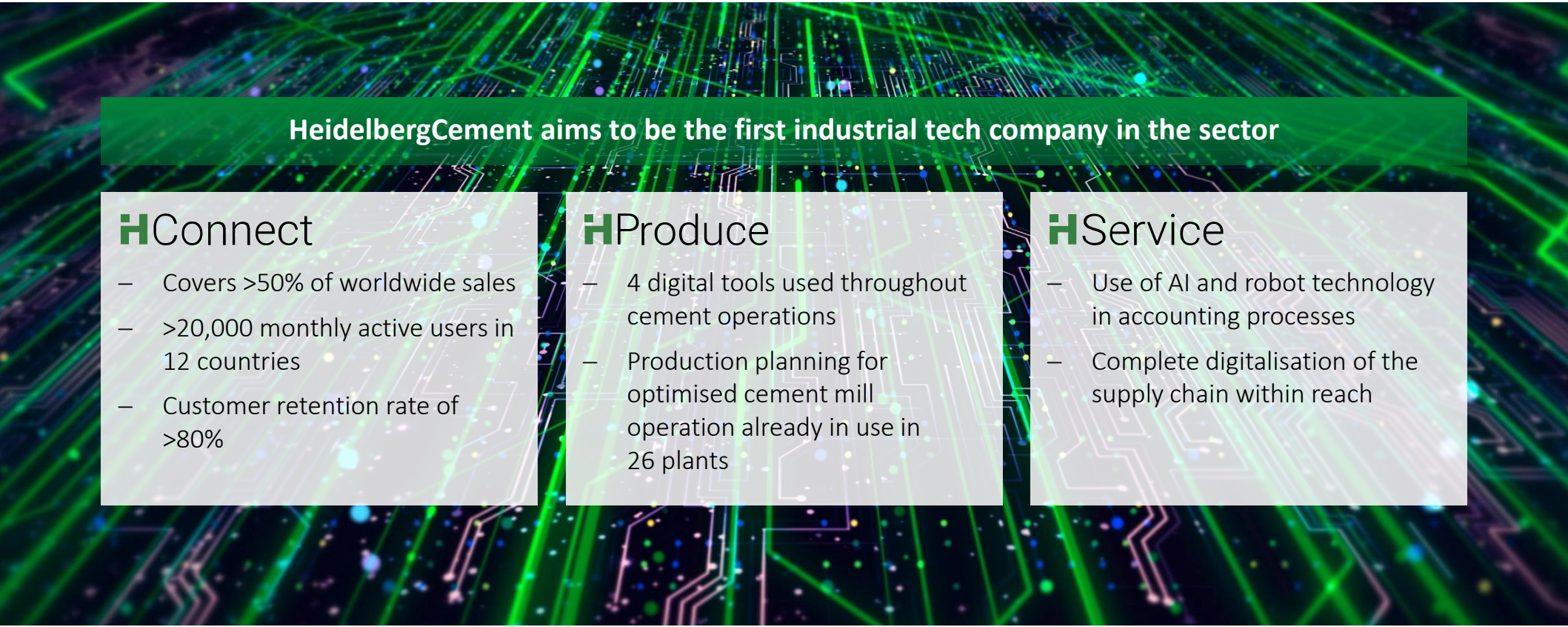
# We are making good progress in digital transformation



**HeidelbergCement aims to be the first industrial tech company in the sector**

## HConnect

- Covers >50% of worldwide sales
- >20,000 monthly active users in 12 countries
- Customer retention rate of >80%

## HProduce

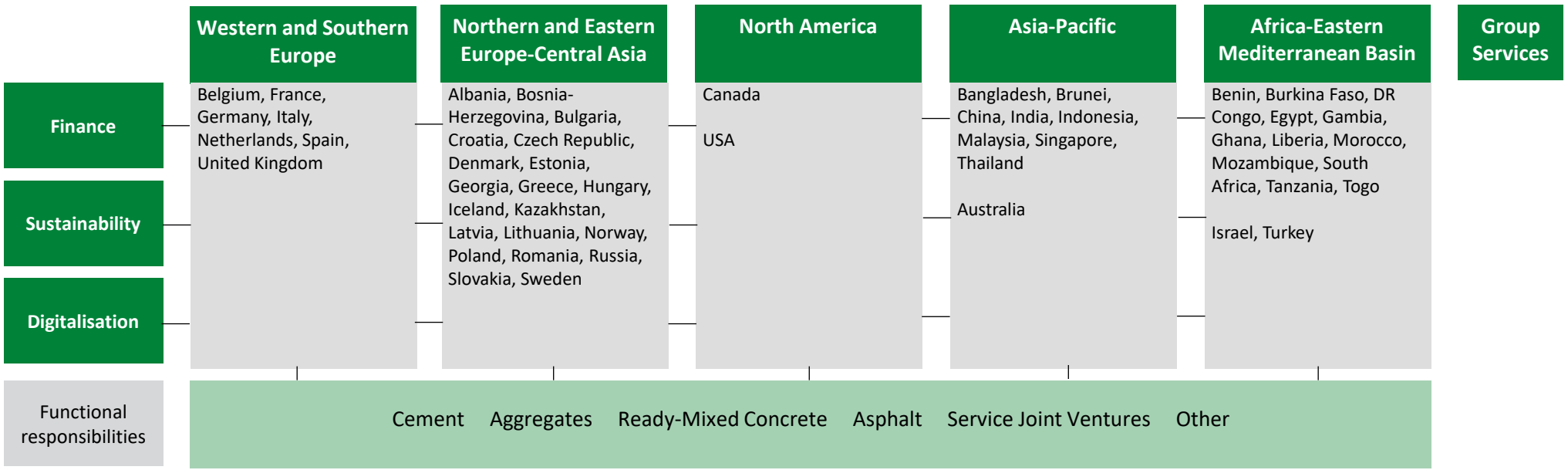
- 4 digital tools used throughout cement operations
- Production planning for optimised cement mill operation already in use in 26 plants

## HService

- Use of AI and robot technology in accounting processes
- Complete digitalisation of the supply chain within reach

# Appendix

# Our organisational structure



# The Managing Board of HeidelbergCement

**Dr. Dominik von Achten**
Chairman

**René Aldach**
Chief Financial Officer

**Kevin Gluskie**
Asia-Pacific

**Hakan Gurdal**
Africa-Eastern Mediterranean Basin

**Ernest Jelito**
Northern and Eastern Europe-Central Asia

**Dr. Nicola Kimm**
Chief Sustainability Officer

**Dennis Lentz**
Chief Digital Officer

**Jon Morrish**
Western and Southern Europe

**Chris Ward**
North America